

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A hot plate for heating a wafer comprising a ceramic substrate, ~~in disc form~~, said ceramic substrate having a lower face having a surface roughness of 2 μm or less and an upper face,

wherein a resistance element pattern having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on the lower face of the ceramic substrate

Claim 2 (Original): The hot plate according to claim 1, wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 3 (Previously Presented): The hot plate according to claim 1, wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 4 (Currently Amended): The hot plate according to claim 1, wherein the thickness of said resistance element is from 1 to 10 μm .

Claim 5 (Previously Presented): The hot plate according to claim 1, wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

Claim 6 (Canceled).

Claim 7 (Previously Presented): The hot plate according to claim 1, wherein said resistance element has a multilayer structure, and among a plurality of layers constituting said resistance element, the layer nearest to the substrate comprises titanium or chromium.

Claim 8 (Previously Presented): The hot plate according to claim 1, wherein said resistance element comprises a first layer comprising titanium; a second layer comprising molybdenum and having a larger thickness than said first layer, on said first layer; and a third layer comprising nickel and having an intermediate thickness between the thickness of said first layer and that of said second layer, on said second layer.

Claim 9 (Previously Presented): The hot plate according to claim 1, wherein said resistance element comprises a titanium layer having a thickness of 0.1 to 0.5 μm , a molybdenum layer having a thickness of 0.5 to 7.0 μm , on said titanium layer, and a nickel layer having a thickness of 0.4 to 2.5 μm , on said molybdenum layer.

Claims 10-13 (Canceled).

Claim 14 (Withdrawn): A process for producing a hot plate wherein a resistance element having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on an insulating substrate, comprising forming said resistance element by a film-depositing method based on a dry process.

Claim 15 (Withdrawn): A process for producing a hot plate wherein a resistance element having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on an insulating substrate, comprising forming said resistance element by RF sputtering.

Claim 16 (Withdrawn): A process for producing a hot plate wherein a resistance element having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on an insulating substrate,

comprising printing a resistance element paste made of scaly noble metal powder and firing the paste.

Claim 17 (Currently Amended): A hot plate for heating a wafer comprising a ceramic substrate, ~~in disc form~~, said ceramic substrate having a lower face having a surface roughness of 2 μm or less and an upper face,

wherein a resistance element pattern having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on the lower face of the ceramic substrate, and

wherein said resistance element pattern is formed by a dry process.

Claim 18 (Previously Presented): The hot plate according to claim 17, wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 19 (Previously Presented): The hot plate according to claim 17, wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 20 (Previously Presented): The hot plate according to claim 17, wherein the thickness of said resistance element is from 1 to 10 μm .

Claim 21 (Previously Presented): The hot plate according to claim 17, wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

Claim 22 (Previously Presented): The hot plate according to claim 17, wherein said dry process is RF sputtering.

Claim 23 (Currently Amended): A hot plate for heating a wafer comprising a ceramic substrate, ~~in disc form~~, said ceramic substrate having a lower face having a surface roughness of 2 μm or less and an upper face,

wherein a resistance element pattern having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on the lower face of the ceramic substrate, and

wherein said resistance element pattern is made of scaly noble metal powder.

Claim 24 (Previously Presented): The hot plate according to claim 23, wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 25 (Previously Presented): The hot plate according to claim 23, wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 26 (Previously Presented): The hot plate according to claim 23, wherein the thickness of said resistance element is from 3 to 10 μm .

Claim 27 (Previously Presented): The hot plate according to claim 23, wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

Claim 28 (Previously Presented): A process comprising heating a wafer with the hot plate according to claim 1.

Claim 29 (New): The hot plate according to claim 1, wherein the thickness dispersion being the larger of the absolute value of $T_{\text{max}} - T_{\text{av}}$ and the absolute value of $T_{\text{min}} - T_{\text{av}}$, T_{av} being an average thickness obtained by averaging thicknesses of arbitrarily selected 10

points of the resistance element, T_{av} being within a range of 3 to 500 μm , T_{max} being the maximum thickness of said 10 points, and T_{min} being the minimum thickness of said 10 points.

DISCUSSION OF THE AMENDMENT

The Specification is amended to correct a typographical error. The typographical error pertains to measured surface roughness (Ra) of the insulating substrate (IS) described in Sample 1 (S1) on page 13. In the Specification, as originally filed, the S1-IS-Ra is listed as "0.3 μm ," while it should read "0.5 μm ." Support for this amendment is found on page 14, lines 23-24 and Fig. 4A along with page 14, lines 9-10.

The Abstract is amended to remove the phrase "of the present invention." A clean copy of the Abstract is attached at the end of this paper.

Claims 1-5, 7-9, and 14-29 are pending. Since claims 14-16 have been withdrawn, Claims 1-5, 7-9, and 17-29 are under active consideration. Claims 3, 5, 7-9, 18-22, and 24-28 are previously presented. Claim 2 is original. Claims 6, 10, and 13 have been canceled without prejudice. Claim 29 is added. Support for new Claim 29 is found on page 3, lines 10ff. Claims 1, 4, 17, and 23 are amended. Support for the amendments is found in the originally filed Claims, Specification, and Figures. Specific support for the surface roughness limitation is found on page 6, lines 11ff. Upon entry of the amendment, Claims 1-5, 7-9, and 17-29 will be active.

No new matter is believed to have been added by the above amendment. With entry thereof, Claims 1-5, 7-9, and 17-29 will be active. As noted above, Claims 14-16 stand withdrawn from consideration.

Applicants concurrently filed an Amendment and Request for Reconsideration and a Notice of Appeal on August 27, 2004 in response to the final Office Action dated April 2, 2004. The Office's return response was in the form of an Advisory Action dated September 30, 2004, which stated that for the purposes of Appeal the Amendment filed August 27, 2004 was not entered. Applicants file concurrently herewith a Request for Continued Examination.